INDEX
TO VOLUME XXXIII
1936

HEATING & VENTILATING
148 LAFAYETTE STREET, NEW YORK

Engin. Lib
Wash.

INDEX TO VOLUME XXXIII, 1936

LEADING ARTICLES

(A) Indicates Abstract; (BR) Book Review

Air Cleaning and Washing, Dust and Dust Collection

The Experimental Production of Silicosis, Leroy U. Gardner, Jan., 110. (A)

Asbestosis (Parts 2 and 3), Jan., 122. (A)

The Determination and Control of Industrial Dust, J. J. Bloomfield and J. M. Dallavalle, Feb., 59. (A)

City Smoke and Its Effects, Mar., 30.

Review of the Pneumonokonioses—Literature and Laws of 1934, Compiled by Davis, Salmonsen and Earlywine, Mar., 79. (BR)

Research Rates Effect of Atmospheric Conditions, May. 46.

Industrial Ventilation and Silicosis Prevention, June, 26.

Smoke Abatement and Insulation Studied by Institute, June, 58.

Industrial Dust, Philip Drinker and Theodore Hatch, Sept., 66. (BR)

Engineering Notes—How To Care for a Dust Control System, Nov., 54.

Investigations on Respiratory Dust Disease in Operatives in the Cotton Industry, C. Prausnitz, Nov., 60. (BR)

Dust Control Devices Tested, Dec., 38.

Engineering Notes—How To Install Dust Control Exhaust Piping, Dec., 49.

What Readers Say—Silica Fumes, Dec.. 51.

Air Conditioning and Ventilation

Summer Cooling of Detroit Research Residence, G. B. Helmrich, Jan., 99.

Air Conditioning Principal ASRE Topic at 31st Annual Meeting, New York, December 4-6, Jan., 104.

Combined Home and Shop Training in Refrigeration and Air Conditioning, Jan., 110. (A)

Elements of Refrigeration from Small Commercial Plants, W. H. Martin, Jan., 122. (A)

Skyscraper Adds 1½ Floors to Air Conditioning System, Feb., 24.

Cooling Tower Inside, Machinery Room Outside in Air Conditioning of U. S. Treasury, Louis K. Berman and Paul K. Gerhardt, Feb., 25.

What Does it Cost to Operate an Industrial Exhaust System? B. F. Postman, Feb., 32.

Some Summer Air Conditioning Costs, Feb., 37.

Lemon Precooling Plant Maintains Constant Conditions, Feb., 43.

Air Filter System for Plastic Molding Room, Feb., 44.

Radio Factory Protects Workers from Fumes with Exhaust System, Feb., 49.

Dehumidifying Pays Its Cost in Color Printing Plant, Feb., 50.

Cleaning Air Cooled Condensers, Feb., 54.

What Readers Say—Effective Temperature, Feb., 56.

The American Society of Heating and Ventilating Engineers Guide—1936, Feb., 59. (BR)

How Much Outside Air is Necessary for Ventilation? Mar., 31.

A Psychrometric Chart with Barometric Pressure as a Variable, J. S. Chandler, Mar., 36.

Selective Air Conditioning Provided for Hotel, Mar., 54.

What Readers Say—Air Density, Mar., 61.

Controlled Humidity in Industry, M. C. Marsh, Mar., 62. (BR)

Chicago Ventilating Contractors Claim Air Conditioning Work, Apr., 33.

Ice for Air Conditioning Motor Buses, Apr., 43.

Summer Air Conditioning in 1935 Up 28.6% Over 1934, Apr., 44.

Southern Pacific to Spend $1 Million on Air Conditioning, Apr., 48.

Ocean Liners Turn to Comfort Cooling, Apr., 49.

Automatic Controls for Central Fan Systems for Summer Operation, Apr., 54.

How to Solve Problems Involving Moisture on Windows, Clifford Strock, May, 27.

Heat Gain from Artificial Lights, May, 30.

Modern Hospital Uses Winter Air Conditioning in Operating Rooms, May, 32.

Seasonality of Summer Air Conditioning Business, Knight C. Porter, May, 34.

Economic Benefits of Air Conditioning, May. 37.

Air Conditioning Improves Plate Making and Offset Printing, May, 41.

Getting Down To Fundamentals. 12—Estimating Sun Heat Through Glass Windows and Skylights, May, 43; **13—Estimating Heat Quantities Due to Humidity Changes,** June, 54; **14—Estimating Heat Quantities from Electrical Energy,** July, 39; **15—Estimating Heat Quantities from Gas Appliances,** Aug., 54; **16—Heat Quantities from Hot or Cold Pipes, Ducts, Tanks, and Similar Surfaces,** Sept., 60; **17—Approximate Heat Quantities for Preliminary Estimating,** Nov., 51.

Research Rates Effect of Atmospheric Conditions, May, 46.

Automatic Controls for Year 'Round Central Fan Systems, May, 47.

12-Story New York Apartment Installs Year 'Round Conditioning, Joseph F. Kern, Jr., May, 51.

Air Conditioning Aids Utility Employes, Leslie S. Tarleton, May, 55.

Cross Connecting Two Unit Conditioners Permits Flexibility in Modernized Grill, May, 57.

What Readers Say—Psychrometry at 3,000 Ft., May, 58; **Hospital Air Conditioning,** May, 58.

Setting Dampers for Split System Control, E. O. Young and Francis A. Westbrook, May, 61.

900,000 Air Inlets, M. A. Boyd, June, 27.

Synthetic Atmospheres Studied, June, 32.

Automatic Controls for Summer and Winter Unit Conditioners, June, 51.

Use of Brine for Absorbing Irritant Refrigerants in Air Conditioning Systems, July, 26.

Heating and Cooling Kress' Fifth Avenue 5, 10 and 25, A. F. Crowley, July, 27.

Principles of the Heat Pump, July, 34.

Air Conditioning Manufacturers Adopt Application Engineering Standards, July, 45.

Air Conditioning Prominent at EEI Meeting, July, 50.

Largest Air Conditioned Hotel Has Six Zone System, John R. Hertzler, July, 59.

Suggestions for Fireproofing Air Conditioning Installations, July, 62.

How to Figure Air Conditioning, Harold M. Hendrickson, July, 64. (BR)

Commercial Refrigeration—Small Plants, L. K. Wright, July, 64. (BR)

Rules for Handling Oxygen, Aug., 27.

Hospital Air Conditioning, Aug., 38.

Air Conditioning at the Texas Centennial Exposition, Aug., 49.

Dehumidification Smooths the Curve in a Pharmaceutical Plant, C. W. Swenson, Aug., 52.

Vacuum Refrigeration, D. H. Jackson, Aug., 59. (A)

Practical Air Conditioning, Harold L. Alt, Aug., 59. (BR)

Lubrication and Air Conditioning, Aug., 61. (A)

Principles and Practice of the Heat Pump, C. W. Chamberlain, Aug., 61. (A)

Progress in Air Conditioning in the Last Quarter Century, W. H. Carrier, Aug., 61. (A)

Comfort Standards for Summer Air Conditioning System, F. C. Houghten and Carl Gutberlet, Aug., 61. (A)

Air Conditioning in Relation to Water Consumption, Logan L. Lewis, Aug., 61. (A)

When to Use Steam Jet Units for Air Conditioning, M. A. Nelson, Sept., 27. (A)

Five Methods of Cooling a Residence, Sept., 35.

Department Store Heated and Cooled by Diesels, Joseph F. Kern, Jr., Sept., 43.

What Are the Facts about Residential Air Conditioning, Sept., 46. (A)

USSR Now Makes Air Conditioning Apparatus, Sept., 49.

What Readers Say—Books, Sept., 58.

Ventilation Manual for Sheet Metal Contractors, Paul R. Jordan, Sept., 68. (BR)

Selling Iced Air Conditioning, H. L. Lincoln and V. V. Ogburn, Sept., 69. (BR)

Application Factors which Govern the Selection of Refrigerating Equipment for Air Conditioning Service, J. R. Hertzler, Sept., 69. (A)

Ventilation in a Municipal Garage, Francis C. Holbrook, Oct., 38.

First Large Air Conditioned Apartment House, Oct., 39.

Madison Square Garden Invests in Modern Cooling. Oct., 43.

Noise and Dirt Force Building to Air Condition, Oct., 46.

Hay Fever Sufferers Relieved by Air Conditioning, Oct., 52.

Sound and Ventilation in Churches, Oct., 63.

The Warmth Factor in Comfort at Work, T. Bedford, Oct., 65. (BR)

Papers Presented at the First Annual Conference on Air Conditioning, Oct., 65. (A)

Psychrometric Table—Data Sheets Nos. 87-88, Oct., 66, 67.

What Readers Say—Psychrometry, Oct., 67; **House Air Conditioning.** Oct., 68.

Hotel Converts Ventilating System to Cooling, Nov., 27.

Air Conditioned Smokehouse in New Meat Plant, Nov., 34.

Air Conditioning and Its Effect on Hay Fever and Pollen Asthma, William H. Welker, Nov., 35.

Engineering Notes—Gasproof Shelters for British Firm, Nov., 54; **Insurance Company Recommends a 68F Night Temperature,** Nov., 54.

Air Conditioning in Industry, Mary O. Soroka. 1—**Handling of Foods,** Nov., 55; 2—**Manufacture of Matches, Textiles, and Tobacco Products,** Dec., 29.

Heat Loads of Electrical Equipment, Data Sheets Nos. 89-90, Nov., 58, 59.

Air Conditioning as a Form of Fire Insurance, Dec., 25.

Gas Constant for Humid Air, A. H. Zerban, Dec., 26.

Air Conditioning in Hospitals and Dental Offices Surveyed, Dec., 27.

Scientists Propose Air Conditioned Farm, Dec., 28.

Underwriters' Regulations for Installation of Ventilating and Air Conditioning Systems, Dec., 39.

Poor Ductwork Hinders Winter Air Conditioning, Dec., 42. (A)

Winter Air Conditioning for Historic Vessel, Dec., 46.

Engineering Notes—Four Year Survey Reveals 34% Reduction in Employe Illness, Dec., 48; **Standard Drinking Water Requirements,** Dec., 49.

What Readers Say—Attic Fans, Dec., 50; **Hospital Air Conditioning,** Dec., 51.

A Recapitulation of the Progress Made in Applying Summer Gas Air Conditioning to Industrial Plants, Charles W. Swenson, Dec., 53. (A)

Heat Losses from the Human Body, Eugene F. DuBois and James D. Hardy. Dec., 53. (A)

Chicago Revises Its Comfort Air Conditioning Standards, Dec., 54.

Heat Loads of Gas Appliances, Data Sheets Nos. 91-92, Dec., 54, 55.

Air Flow and Distribution

What Readers Say—Air Density, Mar., 61.

The Flow of Air in Ducts, Emory Kemler, May, 38.

What Readers Say—Smoke Bombs, May, 58.

Pressure Losses in Rectangular Elbows, R. D. Madison. 1—July, 23; 2—Aug., 39.

Air Control for Bituminous Underfeed Stokers, Noel Cunningham, Sept., 50.

Air Conditioning—Design and Construction of Ducts, Thomas J. Brett, Oct., 65. (BR)

Automatic Air Controls for Bituminous Underfeed Stokers, Noel Cunningham, Nov., 29.

Ducts—Materials, Fabrication and Erection, Nov., 39.

Underwriters' Regulations for Installation of Ventilating and Air Conditioning Systems, Dec., 39.

Poor Ductwork Hinders Winter Air Conditioning, Dec., 42. (A)

What Readers Say—Madison Square Garden, Dec., 50; **Attic Fans,** Dec., 50.

Auxiliary Equipment

Automatic Controls—What They Are and What They Do, Feb., 21.

Automatic Control Eliminates Heating Troubles in Large Hotel, Feb., 34.

Economy of Unique Control System Demonstrated at Mt. Holyoke College Plant, Mar., 27.

Automatic Controls for Winter Central Fan Systems Mar., 51.

Selective Air Conditioning Provided for Hotel, Mar., 54.

Controlled Humidity in Industry, M. C. Marsh, Mar., 62. (BR)

Automatic Controls for Central Fan Systems for Summer Operation, Apr., 54.

Automatic Controls for Year 'Round Central Fan Systems, May, 47.

Automatic Controls for Summer and Winter Unit Conditioners, June, 51.

Automatic Controls for Residence Installations with Central Fans, July, 53.

Comparative Study of Combustion Results with Various Thermostats, Burton E. Shaw, Aug., 61. (A)

Development of Testing Apparatus for Thermostats, D. D. Wile, Aug., 61. (A)

What Readers Say—Vibration, Oct., 67.

Churches

Sound and Ventilation in Churches, Oct., 63.

District Heating

Heating a Model Village, Feb., 29.

Heating a Village from Diesel Exhaust, May, 63.

Interpreting the Use of District Steam in Heating Buildings, John F. Collins, Jr., June, 21.

Calculation of Steam Flow in Underground Distribution Loops, S. M. Arnow, June, 30.

Central Heating in PWA Housing Projects, June, 34-50.

Papers on Steam Jet Cooling and Metering Feature NDHA Convention, July, 35.

Large Central Heating Network Planned for European Capital, Sept., 63.

District Heating Power Station of the Federal Technical University, Zurich, R. Ruegg, Oct., 27.

Russia Plans Huge Network of Heat, Power Stations, Oct., 56.

Degree-Days for Checking District Steam Consumption, D. H. Little, Nov., 32.

Air Conditioning and Its Effect on Hay Fever and Pollen Asthma, William H. Welker, Nov., 35.

Engineering Notes—Curves Showing Relation of Steam Requirements to Occupancy for Various Buildings, Nov., 54.

Advertising District Heating, H. C. Kimbrough, Nov., 58.

A College System of Service Tunnels. Will V. Norris, Dec., 43.

Estimating and Designing

(Includes Data on Estimating Fuel Consumption, Degree-Day and Weather)

Calculating Transmitted Heat Coefficients, Data Sheets Nos. 69-70, Jan., 106, 107.

Some Summer Air Conditioning Costs, Feb., 37.

Getting Down to Fundamentals. 9—Calculated Values of Coefficient U, Feb., 45; **10—Accuracy and Use of Tabulated Values of Coefficient U,** Mar., 55; **11—Estimating Sun Heat Through Walls and Roofs,** Apr., 37; **12—Estimating Sun Heat Through Glass Windows and Skylights,** May, 43; **13—Estimating Heat Quantities Due to Humidity Changes,** June, 54; **14—Estimating Heat Quantities from Electrical Energy,** July, 39; **15—Estimating Heat Quantities from Gas Appliances,** Aug., 54; **16—Heat Quantities from Hot or Cold Pipes, Ducts, Tanks, and Similar Surfaces,** Sept., 60; **17—Approximate Heat Quantities for Preliminary Estimating,** Nov., 51.

Heat Transmission Tables, Nos. 71 and 72, Feb., 54, 55.

What Readers Say—Effective Temperature, Feb., 56; **Utica Degree-Days,** Feb., 57; **Heat Loss Tables,** Feb., 57.

How Much Outside Air is Necessary for Ventilation? Mar., 31.

A Psychrometric Chart with Barometric Pressure as a Variable, J. S. Chandler, Mar., 36.

What Readers Say—Design Temperature in Concord, Mar., 60; **Fuel Estimating,** Mar., 61; **Concrete Walls,** Mar., 61; **Conductivity Tables,** Mar., 61.

Heat Transmission Tables (Values of U for Wood Constructions), Data Sheets Nos. 73-74, Mar., 62, 63.

How To Make Surveys for Stoker Installations, Noel Cunningham, Apr., 29.

New Value of Heat Transmission Coefficients for Concrete Walls, Apr., 34.

The Influence of Counterflow on Convector Capacity, M. William Ehrlich, Apr., 46.

Practical Suggestions on House Insulation, J. D. Hoffman, Apr., 52.

Heat Transmission Tables (Values of U for Various Floors, Ceilings, Roofs, and Partitions), Data Sheets Nos. 75-76, Apr., 58, 59.

What Readers Say—Radiator Data, Apr., 61.

Heat Gain from Artificial Lights, May, 30.

Estimating Heat Load in Mild Climates, J. A. Robinson, May, 36.

Degree-Day Chart Shows Why Bills Vary, May, 46.

What Readers Say—Attic Heat Loss, May, 58; **Design Temperatures,** May, 59.

Heat Transmission Tables (Values of U for Roofs, Windows, Skylights, and Doors), Data Sheets Nos. 77-78, May, 62, 63.

Interpreting the Use of District Steam in Heating Buildings, John F. Collins, Jr., June, 21.

Calculation of Steam Flow in Underground Distribution Loops, S. M. Arnow, June, 30.

Heat Transmission Tables (Values of Coefficient U), Data Sheets Nos. 79-80, June, 58, 59.

Weather Forecasting Progresses; Problem Studied by Various Agencies, June, 59.

Pressure Losses in Rectangular Elbows, R. D. Madison. 1—July, 23; 2—Aug., 39.

What Readers Say—Design Temperatures, July, 58.

Heat Transmission Tables (Values of U for Concrete Walls), Data Sheets Nos. 81-82, July, 62, 63.

Sun Effect and Heat Flow Through Brick Walls as Studied with the Hydrocal, J. F. Lamb, Aug., 32.

Degree-Day Competition Awards, Aug. 44.

Degree-Day Methods Offer Attractive Heating Economies, R. E. Hieronymus, Aug., 45.

Estimating Sun Heat Through Walls and Roofs, Data Sheets Nos. 83-84, Aug., 58, 59.

Air Conditioning in Relation to Water Consumption, Logan L. Lewis, Aug., 61. (A)

Pyrheliometers and the Measurement of Total Solar Radiation, L. A. Harding, Aug., 61. (A)

Degree-Days Page Mr. Consumer, W. L. Jones, Sept., 34.

Are the Estimates of Heat Loss High? Sept., 48.

Use of the Degree-Day by the New York Central Building and the Real Estate Board, C. P. Benneche, Sept., 54.

What Readers Say—Boiler Capacity, Sept., 58.

Estimating Sun Heat Through Glass Windows and Skylights, Data Sheets Nos. 85-86, Sept., 58, 59.

Design Problems of Heating and Ventilation, A. T. Henly, Sept., 68. (BR)

Application Factors which Govern the Selection of Refrigerating Equipment for Air Conditioning Service, J. R. Hertzler, Sept., 69. (A)

Heating and Ventilating's Degree-Day Vestbook, Sept., 69. (A)

Symbols for Drawings of Mechanical Equipment for Buildings, Oct., 30.

Use of the Degree-Day Unit in the Anthracite Industry, C. E. Mengel, Oct., 35.

Yearly Costs from Degree-Days, Lorin G. Miller, Oct., 42.

Infiltration Through Doors, Oct. 50.

Welded Pipe Joint Design Fundamentals, Oct., 53.

Degree-Day Reports for 48 Cities, Oct., 57.

Insolation: Its Quantity and Variations, Herbert Bishop Addington, Oct., 60.

An Introduction to the Study of Air Mass Analysis, Jerome Namias and others, Oct., 66. (BR)

Analysis of Flow in Networks of Conduits or Conductors, Hardy Cross, Oct., 66. (A)

Psychrometric Table, Data Sheets Nos. 87-88, Oct., 66, 67.

What Readers Say—Design Temperatures, Oct., 67.

Degree-Days for Checking District Steam Consumption, D. H. Little, Nov., 32.

Ducts—Materials, Fabrication and Erection, Nov., 39.

Engineering Notes—Curves Showing Relation of Steam Requirements to Occupancy for Various Buildings, Nov., 54.

Heat Loads of Electrical Equipment, Data Sheets Nos. 89-90, Nov., 58, 59.

Selecting a Stoker for a School Building, Marius Anderson, Dec., 24.

Engineering Notes—Compiling Weather Reports, Dec., 48.

What Readers Say—Friction Factor, Dec., 50.

Heat Loads of Gas Appliances, Data Sheets Nos. 91-92, Dec., 54, 55.

Fans and Blowers

Blower Practice and Industrial Ventilation Papers Prominent at Annual ASME Meeting, Jan., 106.

What Does it Cost to Operate an Industrial Exhaust System? B. F. Postman, Feb., 32.

Automatic Controls for Winter Central Fan Systems, Mar., 51.

Automatic Controls for Residence Installations with Central Fans, July, 53.

Airfoil Fan Characteristics. W. A. Rowe, Aug., 61. (A)

Fuels, Combustion and Heat Generation

BOILERS, CHIMNEYS, DRAFT, BOILER WATER

The Pape-Swift Boiler Reference Book—1936 Edition, Feb., 59.

Heat from the Sun, Mar., 39.

What Readers Say—Steel Boiler Pressures, Mar., 60.

Power Plant Industry, A. H. Gill, Mar., 62.

Selection of Bituminous Coal for Heating Stokers, Noel Cunningham, July, 31.

What Readers Say—Diesels for Heating (Answers 1 and 2), July, 58; **Combustion,** Sept., 58.

Relative Absorption of the Various Sections of Round Heating Boilers, A. J. Johnson and P. A. Mulcey, Oct., 66. (A)

A Study of the Reactions of Various Inorganic and Organic Salts in Preventing Scale in Steam Boilers, Frederick G. Straub, Oct., 81. (BR)

Colloidal Fuel, Description of Different Processes. David Brownlie, Nov., 61. (A)

COAL AND COKE HEATING

What Readers Say—Stoker Bibliography, Feb., 56.

Stoker Saves Paint Manufacturer 20% in Fuel, Apr., 26.

Steam Generation by Burning Wood, R. E. Summers, Apr., 27.

How to Make Surveys for Stoker Installations, Noel Cunningham, Apr., 29.

Unit Heater Dries Packaged Fuel, Apr., 32.

Stoker Applications in Warm Air Furnaces, Apr., 42.

Clinker Formation in Small Underfeed Stoker, Ralph A. Sherman and E. R. Kaiser, Apr., 60. (A)

The Relation of the Size of Bituminous Coals to Their Performance on Small Underfeed Stokers, Part 1, R. A. Sherman and E. R. Kaiser, May, 66. (A)

Selection of Bituminous Coal for Heating Stokers, Noel Cunningham, July, 31.

What Readers Say—Boiler Cross-Section, July, 58.

Air Control for Bituminous Underfeed Stokers, Noel Cunningham, Sept., 50.

Performance of an Underfeed Domestic Stoker, T. G. Estep and D. C. Saylor, Sept., 69. (A)

Proceedings of the Third Short Course in Coal Utilization, Sept., 69. (BR)

Use of the Degree-Day Unit in the Anthracite Industry, C. E. Mengel, Oct., 35.

Bin Feeds for Stokers, Noel Cunningham, Oct., 47.

Possible Recovery of Coal from Waste at Illinois Mines, C. M. Smith and D. R. Mitchell, Oct., 66. (A)

Automatic Air Controls for Bituminous Underfeed Stokers, Noel Cunningham, Nov., 29.

Selecting a Stoker for a School Building, Marius Anderson, Dec., 24.

The Mechanical Stoker—Its Development and Progress, Marc G. Bluth, Dec.. 36.

ELECTRIC HEATING

A Rock Storage Oven for Electrical Heat, H. J. Dana and R. E. Lyle, Apr., 39.

Electric Boiler Cuts Heating Costs, Mar., 35.

What Readers Say—Oil and Electric Heat, Mar., 60.

Getting Down to Fundamentals. 14—Estimating Heat Quantities from Electrical Energy, July, 39.

Air Conditioning Prominent at EEI Meeting, July, 50.

Central Electric Heating Plant in TVA School at Norris, Earle S. Draper, Aug., 23.

Electrical Heat for Seattle Homes, Aug., 43.

Electric Panel Heating for British House of Commons, Oct., 37.

GAS HEATING

Engineering Gas Conversion Burner Installations, Alford G. Canar. **5—Applying the Calculated Gas Rate to the Burner; Testing for Heat,** Jan., 107; **6—Results Obtained by Properly Engineered Burner Jobs,** Feb., 51.

Stoker Installation Saves $5,000 Annually, Feb., 38.

Hamburger Castles Heated with Gas, Feb., 41

Gas Heat Brings New Tenants to Loft Building, Feb., 54.

What Readers Say—Gas Conversion, Mar., 60.

Investigation of the Use of Gaseous Fuel in Warm-Air Furnaces, R. B. Leckie, Mar.. 62.

Degree-Day Chart Shows Why Bills Vary, May, 46.

Installation and Maintenance Practices of Central Heating Equipment, May, 66. (A)

Plant for Automotive Parts Uses Gas Heaters, Automatic Filters, and Controls, Edward Stephenson, Jr., Aug., 36.

Getting Down to Fundamentals. 15—Estimating Heat Quantities from Gas Appliances, Aug., 54.

Degree-Days Page Mr. Consumer, W. L. Jones, Sept., 34.

A Study of the Economics of Gas House-Heating, A. M. Beebee, Sept., 68. (A)

American Gas Catalog and Handbook—1936 Edition, Sept., 69. (A)

Gas Heating Progress During 1936, E. H. Lewis, Dec., 34. (A)

A Recapitulation of the Progress Made in Applying Summer Gas Air Conditioning to Industrial Plants, Charles W. Swenson, Dec., 53. (A)

OIL HEATING

Integrating an Industry, Mar., 42.

What Readers Say—Oil and Electric Heat. Mar., 60.

A Diesel Engine for Heating? Joseph F. Kern, Jr., Apr., 23.

Fuel Oil—Industrial Storage and Use, Apr., 60. (A)

11,000 Attend Oil Burner Show; 1936 Biggest Burner Year is Prediction, May, 42.

Heating a Village from Diesel Exhaust, May, 63.

Oil Burning Handbook, Han A. Kunitz, June, 73. (BR)

Oil Burner Institute Tackles Local Problems, July, 38.

Anthracite Gains, July, 57.

Economic Survey of Fuel Oil and Oil Burning Equipment, Aug., 60. (BR)

Department Store Heated and Cooled by Diesels, Joseph F. Kern, Jr., Sept., 43.

Characteristics of Fuel Oil—Their Effect on Oil Burner Performance, E. B. Glendenning and W. A. Sullivan, Jr., Sept., 66, 67, 68. (A)

Heat Loads of Electrical Equipment, Data Sheets Nos. 89-90, Nov., 58.

History of Oil Heating, Dec., 31. (A)

Heat Transfer

(Includes Heat Loss, Infiltration, Convection, Conduction, Radiation and Radiators, Building and Piping Insulation, and Radiant Heating)

Calculating Transmitted Heat Coefficients, Data Sheets Nos. 69-70, Jan., 106.

Engineering Data on Flow of Fluids in Pipes and Heat Transmission, Jan., 110. (BR)

Getting Down To Fundamentals. 9—Calculated Values of Coefficient U, Feb., 45; **10—Accuracy and Use of Tabulated Values of Coefficient U,** Mar., 55; **11—Estimating Sun Heat Through Walls and Roofs,** Apr., 37; **12—Estimating Sun Heat Through Glass Windows and Skylights,** May, 43; **13—Estimating Heat Quantities Due to Humidity Changes,** June, 54.

Heat Transmission Tables (Values of U for Masonry Walls), Data Sheets Nos. 71-72, Feb., 54.

What Readers Say—Infiltration, Feb., 56; **Conductivity Tables,** Mar., 61; **Concrete Walls,** Mar., 61.

Heat Transmission Tables (Values of U for Wood Constructions), Data Sheets Nos. 73-74, Mar., 62.

The Testing of Panel Radiators, W. G. Marley, Mar., 78. (A)

New Value of Heat Transmission Coefficients for Concrete Walls, Apr., 34.

Hotel Piping Insulation Pays for Itself in 12 Months, Apr.. 41.

Practical Suggestions on House Insulation, J. D. Hoffman, Apr., 52.

Heat Transmission Tables (Values of U for Various Floors, Ceilings, Roofs, and Partitions), Data Sheets Nos. 75-76, Apr., 58.

What Readers Say—Attic Heat Loss, May, 58.

Fuel Costs Cut 20% by Storm Windows and Doors, May, 62.

Heat Transmission Tables (Values of U for Roofs, Windows, Skylights, and Doors), Data Sheets Nos. 77-78. May, 62.

Smoke Abatement and Insulation Studied by Institute, June, 58.

Heat Transmission Tables (Values of Coefficient U), Data Sheets Nos. 79-80, June, 58.

Heat Transmission Tables (Values of U for Concrete Walls), Data Sheets Nos. 81-82, July, 62.

Sun Effect and Heat Flow Through Brick Walls as Studied with the Hydrocal, J. F. Lamb, Aug., 32.

Soil Temperatures, Aug., 57.

Estimating Sun Heat Through Walls and Roofs, Data Sheets Nos. 83-84, Aug., 58.

Pyrheliometers and the Measurement of Total Solar Radiation, L. A. Harding, Aug., 61. (A)

A Field Study of the Heat Requirements of a College Building, F. E. Giesecke and W. H. Badgett, Aug. 61. (A)

Are the Estimates of Heat Loss High? Sept., 48.

Estimating Sun Heat Through Glass Windows and Skylights, Data Sheets Nos. 85-86, Sept., 58.

Infiltration Through Doors. Oct., 50.

Insolation: Its Quantity and Variations, Herbert Bishop Addington, Oct., 60.

Sound and Ventilation in Churches, Oct., 63.

What Readers Say—Heat Loss Coefficients, Oct., 68.

Insulation in House-Heating, W. W. Cullin, Nov., 61.

Heat Insulation in Air Conditioning, R. H. Heilman, Nov., 61. (A)

Engineering Notes—New Method Invented for Measuring Heat Conductivity, Dec., 48.

What Readers Say—Radiator Paint, Dec., 51.

The Thermal Conductance of A Window, W. G. Marley, Dec., 52. (A)

Hospitals

Modern Hospital Uses Winter Air Conditioning in Operating Rooms, May, 32.

What Readers Say—Hospital Air Conditioning, May, 58.

Hospital Air Conditioning, Aug., 38.

Air Conditioning in Hospitals and Dental Offices Surveyed, Dec., 27.

What Readers Say—Hospital Air Conditioning, Dec., 51.

Hotels and Apartments

Automatic Control Eliminates Heating Troubles in Large Hotel, Feb., 34.

Selective Air Conditioning Provided for Hotel, Mar., 54.

Hotel Piping Insulation Pays for Itself in 12 Months, Apr., 41.

12-Story New York Apartment Installs Year 'Round Conditioning, Joseph F. Kern. Jr., May, 51.

Central Heating in PWA Housing Projects, June, 34-50.

Largest Air Conditioned Hotel Has Six Zone System, John R. Hertzler, July, 59.

First Large Air Conditioned Apartment House, Oct., 39.

Hotel Converts Ventilating System to Cooling, Nov., 27.

Hot Water Heating

Engineering Data on Flow of Fluids in Pipes and Heat Transmission, Jan., 110. (BR)

Heating at Large Industrial Doors, Feb., 38.

Economy of Unique Control System Demonstrated at Mt. Holyoke College Plant, Mar., 27.

The Testing of Panel Radiators, W. G. Marley, Mar., 78. (A)

Household Gas Water Heating, Charles W. Merriam, Jr., Apr., 60. (BR)

Heating a Village from Diesel Exhaust, May, 63.

Central Heating in PWA Housing Projects, June, 34-50.

Research Results and Automatic Controls Feature Warm Air Convention, July, 44.

What Readers Say—Hot Water, July, 58.

Modern Heating, Harold L. Alt, Aug., 60. (BR)

What Readers Say—Friction Factor, Dec., 50.

Industrial Buildings

Reducing Industrial Power Costs, David Moffat Myers, Jan., 110. (BR)

What Does It Cost to Operate an Industrial Exhaust System? B. F. Postman, Feb., 32.

Stoker Installation Saves $5,000 Annually, Feb., 38.

Heating at Large Industrial Doors, Feb., 38.

Lemon Precooling Plant Maintains Constant Conditions, Feb., 43.

Air Filter System for Plastic Molding Room, Feb., 44.

Radio Factory Protects Workers from Fumes with Exhaust System, Feb., 49.

Electric Boiler Cuts Heating Costs, Mar., 35.

Air Conditioning Improves Plate Making and Offset Printing, May, 41.

Industrial Ventilation and Silicosis Prevention, June, 26.

Plant for Automotive Parts Uses Gas Heaters, Automatic Filters and Controls, Edward Stephenson, Jr., Aug., 36.

Dehumidification Smooths the Curve in a Pharmaceutical Plant, C. W. Swenson, Aug., 52.

Air Conditioned Smokehouse in New Meat Plant, Nov., 34.

Air Conditioning in Industry, Mary O. Soroka. 1—**Handling of Foods,** Nov., 55; 2—**Manufacture of Matches, Textiles, and Tobacco Products,** Dec., 29.

Maintenance and Operating

Engineering Gas Conversion Burner Installations, Alford G. Canar. 6—**Results Obtained by Properly Engineered Burner Jobs,** Feb., 51.

Cleaning Air-Cooled Condensers, Feb., 54.

Rules for Handling Oxygen, Aug., 27.

Degree-Day Methods Offer Attractive Heating Economies, R. E. Hieronymus, Aug., 45.

Lubrication and Air Conditioning, Aug., 61. (A)

When To Use Steam Jet Units for Air Conditioning, M. A. Nelson, Sept., 27. (A)

Use of the Degree-Day by the New York Central Building and the Real Estate Board, C. P. Benneche, Sept., 54.

Corrosion Studies in Steam Heating Systems, R. R. Seeber, F. A. Rohrman and G. E. Smedberg, Sept., 68, 69. (A)

Engineering Notes—How to Care for a Dust Control System, Nov., 54.

Office Buildings, Banks and Restaurants

Skyscraper Adds 1½ Floors to Air Conditioning System, Feb., 24.

Gas Heat Brings New Tenants to Loft Building, Feb., 54.

Air Conditioning Aids Utility Employes, Leslie S. Tarleton, May, 55.

Cross Connecting Two Unit Conditioners Permits Flexibility in Modernized Grill, May, 57.

900,000 Air Inlets, M. A. Boyd, June, 27.

Air Conditioning at the Texas Centennial Exposition, Aug., 49.

Noise and Dirt Force Building to Air Condition, Oct., 46.

Piping Installation and Welding

1,000 Ft. of Copper Tubing Simplify Heating Modernization Job, Apr., 53.

Welded Pipe Joint Design Fundamentals, Oct., 53.

Wrought Iron, Its Manufacture, Characteristics and Applications, James Aston and Edward B. Story, Nov., 61. (BR)

MSS Standard Marking System for Valves, Fittings, Flanges, and Unions No. SP-25-1936, Nov., 61. (BR)

The Welding of Wrought Iron, Dec., 21.

The Procedure Handbook of Arc Welding Design and Practice, Dec., 53. (BR)

Thawing Frozen Water Pipes, Dec., 53. (BR)

Professional; Business and Trade Conditions

Business Was Better in 1935—What of 1936? Jan., 54.

Our Statistical Position, Jan., 55.

The 1935 Record of Research, Jan., 68.

Air Conditioning Principal ASRE Topic at 31st Annual Meeting, Jan., 104.

Blower Practice and Industrial Ventilation Papers Prominent at Annual ASME Meeting, Jan., 106.

Consumer Use of Selected Goods and Services, by Income Classes, Salt Lake City, Ada Lillian Bush, Jan., 122. (A)

Consumer Use of Selected Goods and Services, by Income Classes, Trenton, N. J., Ada Lillian Bush, Jan., 122. (A)

Marked Progress in Equipment Design Displayed at Chicago Show, Mar., 40.

Integrating an Industry, Mar., 42.

Comfort Standards and Fuel Saving Methods Feature 42nd Meeting of ASHVE, Mar., 44.

Warm Air Group Meets in Chicago, Hears Technical Papers, Mar., 50.

What Readers Say—Radiators and Convectors, Mar., 60.

How to Protect Business Ideas, William H. Leahy, Mar., 62. (BR)

Consumer Use of Selected Goods and Services, by Income Classes, San Diego, Calif., Ada Lillian Bush, Mar., 78. (A)

Chicago Ventilating Contractors Claim Air Conditioning Work, Apr., 33.

Summer Air Conditioning in 1935 Up 28.6% Over 1934, Apr., 44.

Consumer Use of Selected Goods and Services, by Income Classes, Racine, Wis., Ada Lillian Bush, Apr., 60. (A)

Seasonality of Summer Air Conditioning Business, Knight C. Porter, May, 34.

11,000 Attend Oil Burner Show; 1936 Biggest Burner Year is Prediction, May, 42.

Birmingham Reports Half of Its Families Use Furnaces, May, 64.

Papers on Steam Jet Cooling and Metering Feature NDHA Convention, July, 35.

Oil Burner Institute Tackles Local Problems, July, 38.

Research Results and Automatic Controls Feature Warm Air Convention, July, 44.

Air Conditioning Prominent at EEI Meeting, July, 50.

ASHVE and ASRE Hold Joint Session, July, 51.

Consumer Market Data Handbook—1936, Raleigh W. Dawson, Aug., 61. (A)

Heating Index Reflects Best Business Since 1929, Sept., 33.

Heating Business Continues to Gain, Oct., 41.

1936 Retail Survey, Building Materials, Hardware and Construction Group, Oct., 66. (A)

Domestic Coal Market and What To Do About It, W. B. Hughes, Oct., 66. (A)

Comparative Data on Gas-Fired Central Heating Installations 1935-1934, Oct., 66. (A)

Government Purchasing, Oct., 66. (A)

Store Modernization Needs—Market Research Series No. 8, Oct., 66. (A)

Market for Electrical and Gas Facilities in Residences, Oct., 66. (A)

Heating Business and Building Up Sharply Over 1935, Nov., 30.

U. S. Short 1,200,000 Homes, Statistician Estimates, Nov., 53.

Air Conditioning in Hospitals and Dental Offices Surveyed, Dec., 27.

Heating Business at 84% of 1929 Level, Dec., 33.

What Readers Say—Fair Payment, Dec., 50.

Public Buildings and Institutions

Cooling Tower Inside, Machinery Room Outside in Air Conditioning of U. S. Treasury, Louis K. Berman and Paul K. Gerhardt, Feb., 25.

Electric Panel Heating for British House of Commons, Oct., 37.

Engineering Notes—Four Year Survey Reveals 34% Reduction in Employe Illness, Dec., 48.

Residences

Summer Cooling of Detroit Research Residence, G. R. Helmrich, Jan., 99.

No Radiators or Registers, But Plenty of Heat, Feb., 42.

Purdue Tackles the Housing Problem, Mar., 48.

A Diesel Engine for Heating? Joseph F. Kern, Jr., Apr., 23.

Practical Suggestions on House Insulation, J. D. Hoffman, Apr., 52.

Fuel Costs Cut 20% by Storm Windows and Doors, May, 62.

Automatic Controls for Residence Installations with Central Fans, July, 53.

Five Methods of Cooling a Residence, Sept., 35.

What Are the Facts About Residential Air Conditioning, Sept., 46. (A)

Engineering Notes—Insurance Company Recommends a 68F Night Temperature, Nov., 54.

Schools

Economy of Unique Control System Demonstrated at Mt. Holyoke College Plant, Mar., 27.

Central Electric Heating Plant in TVA School at Norris, Earle S. Draper, Aug., 23.

Selecting a Stoker for a School Building, Marius Anderson, Dec., 24.

A College System of Service Tunnels, Will V. Norris, Dec., 43.

Standards

A Manual of American Standards Approved by the American Standards Association, May, 66.

Air Conditioning Manufacturers Adopt Application Engineering Standards, July, 45.

Comfort Standards for Summer Air Conditioning System, F. C. Houghten and Carl Gutberlet, Aug., 61. (A)

Symbols for Drawings of Mechanical Equipment for Buildings, Oct., 30.

MSS Standard Marking System for Valves, Fittings, Flanges, and Unions, No. SP-25-1936, Nov., 61. (BR)

Underwriters' Regulations for Installation of Ventilating and Air Conditioning Systems, Dec., 39.

Manual of Smoke and Boiler Ordinances and Requirements, Dec., 53. (BR)

Chicago Revises Its Comfort Air Conditioning Standards, Dec., 54.

Steam Heating

Automatic Control Eliminates Heating Troubles in Large Hotel, Feb., 34.

Unit Heater Dries Packaged Fuel, Apr., 32.

The Influence of Counterflow on Convector Capacity, M. William Ehrlich, Apr., 46.

1,000 Ft. of Copper Tubing Simplify Heating Modernization Job, Apr., 53.

Thermostatic Radiator Valves Modernize Insurance Building, May, 50.

Pushing Ahead in Arctic Weather, June, 28.

Calculation of Steam Flow in Underground Distribution Loops, S. M. Arnow, June, 30.

Central Heating in PWA Housing Projects, June 34-50.

Heating and Cooling Kress' Fifth Avenue, 5, 10, and 25, A. F. Crowley, July, 27.

Modern Heating, Harold L. Alt, Aug., 60. (BR)

The Distribution of Steam in Heat Transfer Surface, John McElgin, Aug., 61. (A)

Use of the Degree-Day by the New York Central Building and the Real Estate Board, C. P. Benneche, Sept., 54.

What Readers Say—Boiler Capacity, Sept., 58.

District Heating Power Station of the Federal Technical University, Zurich, R. Ruegg, Oct., 27.

Engineering Notes—Curves Showing Relation of Steam Requirements To Occupancy for Various Buildings, Nov., 54.

Stores

Heating and Cooling Kress' Fifth Avenue 5, 10, and 25, A. F. Crowley, July, 27.

Department Store Heated and Cooled by Diesels, Joseph F. Kern, Jr., Sept., 43.

Theaters

Madison Square Garden Invests in Modern Cooling, Oct., 43.

Transportation Buildings and Equipment

Ice for Air Conditioning Motor Buses, Apr., 43.

Southern Pacific to Spend $1 Million on Air Conditioning, Apr., 48.

Ocean Liners Turn to Comfort Cooling, Apr., 49.

What Readers Say—Railroad Air Conditioning, Apr., 61.

Ventilation in a Municipal Garage, Francis C. Holbrook, Oct., 38.

Winter Air Conditioning for Historic Vessel, Dec., 46.

Warm Air Heating

No Radiators or Registers, But Plenty of Heat, Feb., 42.

What Readers Say—Forced Warm Air, Mar., 60.

Investigation of the Use of Gaseous Fuel in Warm-Air Furnaces, R. B. Leckie, Mar., 62. (A)

Stoker Applications in Warm Air Furnaces, Apr., 42.

Automatic Controls for Central Fan Systems for Summer Operation, Apr., 54.

The Flow of Air in Ducts, Emory Kemler, May, 38.

Birmingham Reports Half of Its Families Use Furnaces, May, 64.

Pressure Losses in Rectangular Elbows, Part I, R. D. Madison, July, 23.

Miscellaneous Buildings

Hamburger Castles Heated with Gas, Feb., 41.

Dehumidifying Pays Its Cost in Color Printing Plant, Feb., 50.

A Heat Insulated Greenhouse, Lawrence C. Porter, Feb., 59. (A)

Scientists Propose Air Conditioned Farm, Dec., 28.

Engineering Notes—Pampered Monkeys, Dec., 48.

DEPARTMENTS

Abstracts

Combined Home and Shop Training in Refrigeration and Air Conditioning, Jan., 110.

The Experimental Production of Silicosis, Leroy U. Gardner, Jan., 110.

Asbestosis (Parts 2 and 3), Jan., 122

Elements of Refrigeration for Small Commercial Plants, W. H. Martin, Jan, 122.

Consumer Use of Selected Goods and Services, by Income Classes, Salt Lake City, Ada Lillian Bush, Jan., 122.

Consumer Use of Selected Goods and Services, by Income Classes, Trenton, N. J., Ada Lillian Bush, Jan., 122.

The Determination and Control of Industrial Dust, J. J. Bloomfield and J. M. Dallavalle, Feb., 59.

A Heat Insulated Greenhouse, Lawrence C. Porter, Feb., 59.

Comfort Standards and Fuel Saving Methods Feature 42nd Meeting of ASHVE, Mar., 44.

Investigation of the Use of Gaseous Fuel in Warm-Air Furnaces, R. B. Leckie, Mar., 62.

Consumer Use of Selected Goods and Services, by Income Classes, San Diego, Calif., Ada Lillian Bush, Mar., 78.

The Testing of Panel Radiators, W. G. Marley, Mar., 78.

Clinker Formation in Small Underfeed Stokers, Ralph A. Sherman and E. R. Kaiser, Apr., 60.

Fuel Oil—Industrial Storage and Use, Apr., 60.

Consumer Use of Selected Goods and Services, by Income Classes, Racine, Wis., Ada Lillian Bush, Apr., 60.

A Manual of American Standards Approved by the American Standards Association, May, 66.

Installation and Maintenance Practices of Central Heating Equipment, May, 66.

Purposes and Regulations, May, 66.

The Relation of the Size of Bituminous Coals to Their Performance on Small Underfeed Stokers, Part I, R. A. Sherman and E. R. Kaiser, May, 66.

Vacuum Refrigeration, D. H. Jackson, Aug., 59.

Consumer Market Data Handbook—1936, Raleigh W. Dawson, Aug., 61.

Airfoil Fan Characteristics, W. A. Rowe, Aug., 61.

Comparative Study of Combustion Results with Various Thermostats, Burton E. Shaw, Aug., 61.

Comfort Standards for Summer Air Conditioning System, F. C. Houghten and Carl Gutberlet, Aug., 61.

Progress in Air Conditioning in the Last Quarter Century, W. H. Carrier, Aug., 61.

Development of Testing Apparatus for Thermostats, D. D. Wile, Aug., 61.

Pyrheliometers and the Measurement of Total Solar Radiation, L. A. Harding, Aug., 61.

The Distribution of Steam in Heat Transfer Surface, John McElgin, Aug., 61.

Principles and Practice of the Heat Pump, C. W. Chamberlain, Aug., 61.

Lubrication and Air Conditioning, Aug., 61.

A Field Study of the Heat Requirements of a College Building, F. E. Giesecke and W. H. Badgett, Aug., 61.

A Study of the Economics of Gas House-Heating, A. M. Beebee, Sept., 68.

Characteristics of Fuel Oil—Their Effect on Oil Burner Performance, E. B. Glendenning and W. A. Sullivan, Jr., Sept., 66, 67, 68.

Corrosion Studies in Steam Heating Systems, R. R. Seeber, F. A. Rohrman and G. E. Smedberg, Sept., 68, 69.

Heating & Ventilating's Degree-Day Vestbook, Sept., 69.

Performance of an Underfeed Domestic Stoker, T. G. Estep and D. C. Saylor, Sept., 69.

American Gas Catalog and Handbook—1936 Edition, Sept., 69.

Application Factors which Govern the Selection of Refrigerating Equipment for Air Conditioning, J. R. Hertzler, Sept., 69.

Papers Presented at the First Annual Conference on Air Conditioning, Oct., 65.

Government Purchasing, Oct., 66.

Store Modernization Needs—Market Research Series No. 8, Oct., 66.

Market for Electrical and Gas Facilities in Residences, Oct., 66.

Analysis of Flow in Networks of Conduits or Conductors, Hardy Cross, Oct., 66.

1936 Retail Survey, Building Materials, Hardware and Construction Group, Oct., 66.

Domestic Coal Market and What To Do About It, W. B. Hughes, Oct., 66.

Comparative Data on Gas-Fired Central Heating Installations 1935-1934, Oct., 66.

Relative Absorption of the Various Sections of Round Heating Boilers, A. J. Johnson and P. A. Mulcey, Oct., 66.

Possible Recovery of Coal from Waste at Illinois Mines, C. M. Smith and D. R. Mitchell, Oct., 66.

Lord Kelvin, Master of Heat and Cold, Nov., 61.

Insulation in House-Heating, W. W. Cullin, Nov., 61.

Heat Insulation in Air Conditioning, R. H. Heilman, Nov., 61.

Colloidal Fuel, Description of Different Processes, David Brownlie, Nov., 61.

The Thermal Conductance of a Window, W. G. Marley, Dec., 52.

Heat Losses from the Human Body, Eugene F. DuBois and James D. Hardy, Dec., 53.

A Recapitulation of the Progress Made in Applying Summer Gas Air Conditioning to Industrial Plants, Charles W. Swenson, Dec., 53.

Correspondence

How to Define Air Conditioning, Jan., 124.

Final Degree-Day Data

For November, 1935, Jan., 119.

For December, 1935, Feb., 68.

For January, 1936, Mar., 72.

For February, 1936, Apr., 70.

For March, 1936, May, 72.

For April, 1936, June, 66.

For May, 1936, July, 72.

For June, 1936, Aug., 68.

For September, 1936, Nov., 70.

For October, 1936, Dec., 66.

Preliminary Degree-Day Data

For September, 1936, Oct., 57.

For October, 1936, Nov., 74.

For November, 1936, Dec., 70.

Engineering Notes

Gas-Proof Shelters for British Firm, Nov., 54.

How to Care for a Dust Control System, Nov., 54.

Insurance Company Recommends a 68F Night Temperature, Nov., 54.

Curves Showing Relation of Steam Requirements to Occupancy for Various Buildings, Nov., 54.

New Method Invented for Measuring Heat Conductivity, Dec., 48.

Four Year Survey Reveals 34% Reduction in Employe Illness, Dec., 48.

Pampered Monkeys, Dec., 48.

Compiling Weather Reports, Dec., 48.

How to Install Dust Control Exhaust Piping, Dec., 49.

Standard Drinking Water Requirements, Dec., 49.

Obituaries

Konrad Meier, Jan., 116.

John E. Jacobs, Jan., 116.

Fred R. Low, Feb., 61.

Francis Howard Mason, Feb., 61.

James A. Trane, Mar., 67.

Alfred Phillip Mudgett, June, 64.

Charles A. Gillham, July, 68.

Werner Nygren, Sept., 71.

Lee B. Mettler, Dec., 60.

J. R. McColl, Dec., 60.

Arthur W. Clark, Dec., 60.

Reference Data Sheets

Calculating Transmitted Heat Coefficients, Nos. 69-70, Jan., 106.

Heat Transmission Tables (Values of U for Masonry Walls), Nos. 71-72, Feb., 54.

Heat Transmission Tables (Values of U for Wood Construction), Nos. 73-74, Mar., 62.

Heat Transmission Tables (Values of U for Various Floors, Ceilings, Roofs, and Partitions), Nos. 75-76, Apr., 58.

Heat Transmission Tables (Values of U for Roofs, Windows, Skylights, and Doors), Nos. 77-78, May, 62.

Heat Transmission Tables (Values of Coefficient U), Nos. 79-80, June, 58.

Heat Transmission Tables (Values of U for Concrete Walls), Nos. 81-82, July, 62.

Estimating Sun Heat Through Walls and Roofs, Nos. 83-84, Aug., 58.

Estimating Sun Heat Through Glass Windows and Skylights, Nos. 85-86, Sept., 58.

Psychrometric Table, Nos. 87-88, Oct., 66.

Heat Loads of Electrical Equipment, Nos. 89-90, Nov., 58.

Heat Loads of Gas Appliances, Nos. 91-92, Dec., 54.

Reviews

Engineering Data on Flow of Fluids in Pipes and Heat Transmission, Jan., 110.

Graphic Course of Patentable Inventions, H. A. Toulmin, Jr., Jan., 110.

Reducing Industrial Power Costs, David Moffat Myers, Jan., 110.

The American Society of Heating and Ventilating Engineers Guide—1936, Feb., 59.

The Pape-Swift Boiler Reference Book—1936 Edition, Feb., 59.

Controlled Humidity in Industry, M. C. Marsh, Mar., 62.

How to Protect Business Ideas, William H. Leahy, Mar., 62.

Power Plant Chemistry, A. H. Gill, Mar., 62.

Review of the Pneumonokonioses—Literature and Laws of 1934, Compiled by Davis, Salmonsen and Earlywine, Mar., 79.

Mechanical and Electrical Equipment for Buildings, C. M. Gay and C. Fawcett, Mar., 79.

Household Gas Water Heating, Charles W. Merriam, Jr., Apr., 60.

Handbook of Applied Mathematics, Martin E. Jansson, Apr., 60.

Church Property and Its Management, H. A. Frommelt, May, 66.

Graphical Solutions, Charles O. Mackey, May, 66.

Oil Burning Handbook, Han A. Kunitz, June, 73.

Commercial Refrigeration—Small Plants, L. Kay Wright, July, 64.

American Standards for Rotating Electrical Machinery, July, 64.

National Electrical Code Handbook, Arthur L. Abbott, July, 64.

How to Figure Air Conditioning, Harold M. Hendrickson, July, 64.

Practical Air Conditioning, Harold L. Alt, Aug., 59.

Technical Drawing, F. E. Giesecke, A. Mitchell and H. C. Spencer, Aug., 59.

Modern Heating, Harold L. Alt, Aug., 60.

Economic Survey of Fuel Oil and Oil Burning Equipment, Aug., 60.

Industrial Dust, Philip Drinker and Theodore Hatch, Sept., 66.

Design Problems of Heating and Ventilation, A. T. Henly, Sept., 68.

Ventilation Manual for Sheet Metal Contractors, Paul R. Jordan, Sept., 68.

Selling Iced Air Conditioning, H. L. Lincoln and V. V. Ogburn, Sept., 69.

Proceedings of the Third Short Course in Coal Utilization, Sept., 69.

Air Conditioning—Design and Construction of Ducts, Thomas J. Brett, Oct., 65.

The Warmth Factor in Comfort at Work, T. Bedford, Oct., 65.

Heating, Ventilating and Air Conditioning, Arthur M. Greene, Jr., Oct., 65

An Introduction to the Study of Air Mass Analysis, Jerome Namias and others, Oct., 66.

Practical Drawing Problems, E. Giesecke, A. Mitchell and Henry Spencer, Oct., 80, 81.

A Study of the Reactions of Various Inorganic and Organic Salts in Preventing Scale in Steam Boilers, Frederick G. Straub, Oct., 81.

Mechanical Engineers Handbook, Robert T. Kent, Nov., 60.

Handbook of Engineering Fundamentals, O. W. Eshbach, Nov., 60.

Investigations on Respiratory Dust Disease in Operatives in the Cotton Industry, C. Prausnitz, Nov., 60, 61.

Selling Radiator Heating to the Homeowner, Graham Bruce Ford, Nov., 61.

Handbook of Chemistry and Physics Published, Nov., 61.

Wrought Iron, Its Manufacture, Characteristics and Applications, James Aston, Edward B. Story, Nov., 61.

MSS Standard Marking System for Valves, Fittings, Flanges, and Unions No. SP-25-1936, Nov., 61.

Cost Accounting System, Dec., 52, 53.

The Procedure Handbook of Arc Welding Design and Practice, Dec., 53.

Manual of Smoke and Boiler Ordinances and Requirements, Dec., 53.

Thawing Frozen Water Pipes, Dec., 53.

Weather Data

For November, 1935, Jan., 120.

For December, 1935, Feb., 70.

For January, 1936, Mar., 74.

For February, 1936, Apr., 72.

For March, 1936, May, 74.

For April, 1936, June, 68.

For May, 1936, July, 74.

For June, 1936, Aug., 70.

For July, 1936, Sept., 76.

For August, 1936, Oct., 76.

For September, 1936, Nov., 72.

For October, 1936, Dec., 68.

What Readers Say

Infiltration, Feb., 56.

Stoker Bibliography, Feb., 56.

Effective Temperature, Feb., 56.

Heat Loss Tables, Feb., 57.

Utica Degree-Days, Feb., 57.

Design Temperature in Concord, Mar., 60.

Forced Warm Air, Mar., 60.

Gas Conversions, Mar., 60.

Steel Boiler Pressures, Mar., 60.

Oil and Electric Heat, Mar., 60.

Radiators and Convectors, Mar., 60.

Fuel Estimating, Mar., 61.

Air Density, Mar., 61.

Concrete Walls, Mar., 61.

Conductivity Tables, Mar., 61.

Kenmore Cooled by Kelvinator, Apr., 61.

Radiator Data, Apr., 61.

Gas Engineering Reprints, Apr., 61.

Design Temperature, Apr., 61.

Gas Radiators, Apr., 61.

Railroad Air Conditioning, Apr., 61.

Attic Heat Loss, May, 58.

Psychrometry at 3,000 Ft., May, 58.

Smoke Bombs, May, 58.

Hospital Air Conditioning, May, 58.

Thanks; We Will, May, 58.

Heat Capacity of Tubing, May, 59.

100,000% Efficiency? May, 59.

Design Temperature. May, 59.

"U" and "K," May, 59.

Blower Mounting, May, 59.

Books, May, 59.

Hot Water, July, 58.

Boiler Cross-Section, July, 58.

Design Temperatures, July, 58.

Diesels for Heating (1 and 2), July, 58.

Boiler Capacity, Sept., 58.

Books, Sept., 58.

Combustion, Sept., 58.

Design Temperatures, Oct., 67.

Vibration, Oct., 67.

Psychrometry, Oct., 67.

House Air Conditioning, Oct., 68.

Heat Loss Coefficients, Oct., 68.

Friction Factor, Dec., 50.

Fair Payment, Dec., 50.

Madison Square Garden, Dec., 50.

Attic Fans, Dec., 50.

Silica Fumes, Dec., 51.

Hospital Air Conditioning, Dec., 51.

Radiator Paint, Dec., 51.